Abstract of the Disclosure

The present invention relates to a radar measuring device which, with a simple design, ensures reliable distance determination even when a mixed signal is zero, and a method for operating a radar measuring device. The radar measuring device includes:
A high-frequency oscillator (11) which emits two different carrier frequency signals (F1, F2),
A first switching device (14) for switching the carrier frequency signals (F1, F2) as a function of first pulse signals (P1) and emitting radar pulse signals (T1, 2),
A transmission antenna (16) and a receiving antenna (18),
A second switching device (24) for switching the carrier frequency signals as a function of a delayed second pulse signal (P2) and emitting delayed radar pulse signals (S1, 2),
A mixing device (21) for mixing received radar signals (R1, 2) with the delayed radar pulse signals (S1, 2) and emitting mixed signals (M1, 2).

The phase differences between the received radar signals (R1, 2) and delayed radar pulse signals (S1, 2) differ by a predetermined value when the two carrier frequency signals (F1, 2) are emitted. An amplitude signal is subsequently determined from the first and second mixed signal (M1, 2).

Figure

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(71) Anmelder *(für alle Bestimmungsstaaten mit Ausnahme von US)*: **ROBERT BOSCH GMBH** [DE/DE]; Postfach 30 02 20, 70442 Stuttgart (DE).

(72) Erfinder; und

(75) Erfinder/Anmelder *(nur für US)*: **HOETZEL, Juergen** [DE/DE]; Reitfeldstrasse 9, 61197 Florstadt (DE). **SCHMID, Dirk** [DE/DE]; Rahaldenstrasse 12, 75397 Simmozheim (DE).

(74) Gemeinsamer Vertreter: **ROBERT BOSCH GMBH**; Postfach 30 02 20, 70442 Stuttgart (DE).

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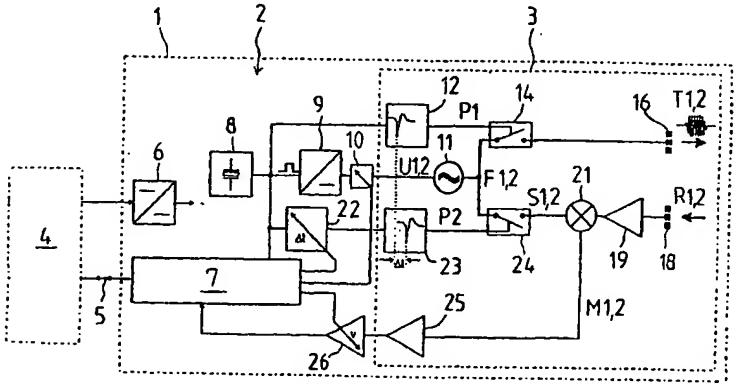
[Fortsetzung auf der nächsten Seite]

(54) Title: RADAR MEASUREMENT DEVICE, ESPECIALLY FOR A MOTOR VEHICLE, AND METHOD FOR OPERATING A RADAR MEASUREMENT DEVICE

(54) Bezeichnung: RADARMESSVORRICHTUNG, INSBESONDERE FÜR EIN KRAFTFAHRZEUG, UND VERFAHREN ZUM BETREIBEN EINER RADARMESSVORRICHTUNG



(57) Abstract: The invention relates to a radar measurement device which has a simple structure and which enables reliable distance measurement even when a mixed signal is reset to zero. The invention also relates to a method for operating a measurement device. The radar measurement device comprises a high-frequency oscillator (11) emitting two different carrier frequency signals (F1,F2), a first switching device (14) for switching the carrier frequency signals (F1, F2) according to first pulse signals (P1) and for emitting radar pulse signals (T1,2), a transmission aerial (16) and a reception aerial (18), a second switching device (24) for switching carrier frequency signals according to a delayed second pulse signal (P2) and for emitting delayed radar pulse signals (S1,2), a mixing device (21) for mixing received radar signals (R1,R2) with the delayed radar pulse signals (S1,S2) and for emitting mixed signals (M1,M2). The phase difference between the received radar signals (R1,R2) and delayed radar pulse signals (S1,S2) varies according to a predefined value when the two carrier frequency signals (F1,2) are emitted. An amplitude signal is determined from the first and second mixed signals (M1, 2).

[Fortsetzung auf der nächsten Seite]

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